

## Features

- PIN Diode SPST Reflective design
- Frequency: 0.05-50GHz
- Isolation: 30dB Typical
- Insertion Loss: 0.8dB Typical
- Control Voltage: +5/-5V
- Switching Speed: 10ns Typical
- Die Size: 1.3 x 0.725 x 0.1 mm

## Typical Applications

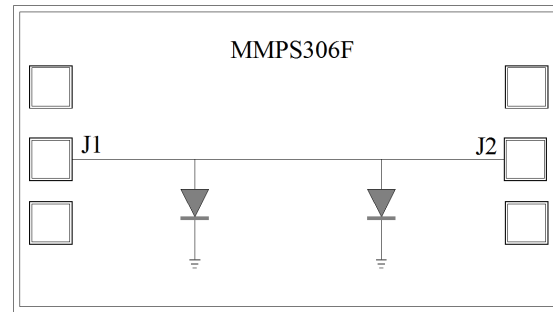
- Voltage control
- Fast Switching Speed
- Low Insertion Loss and High Isolation
- Customization available upon request

## Electrical Specifications

TA = +25°C, VCTL=+5/-5V , ±10 mA Typical

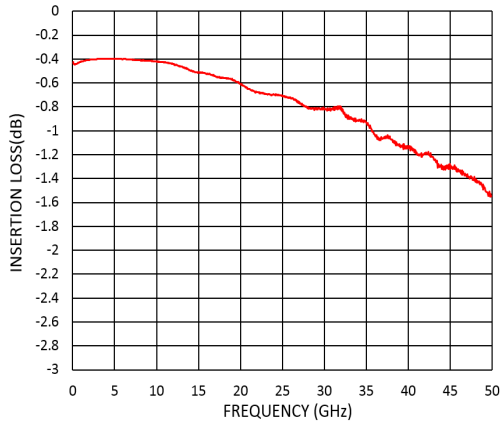
Parameters	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency	0.05		26.5	26.5		50	GHz
Insertion Loss		0.8	1.0		1.5	1.8	dB
Isolation		30			50		dB
Input Return Loss (ON State)		18			16		dB
Output Return Loss (OFF State)		18			16		dB
P1dB - Output 1dB Compression		32			30		dBm
IIP3-Input Third Order Intercept		45			40		dBm
Switching Speed		10			10		ns

## Functional Block Diagram

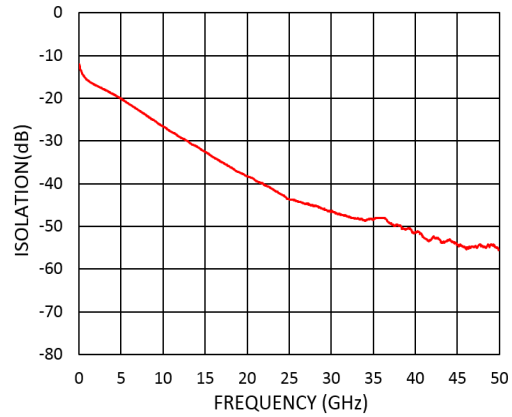




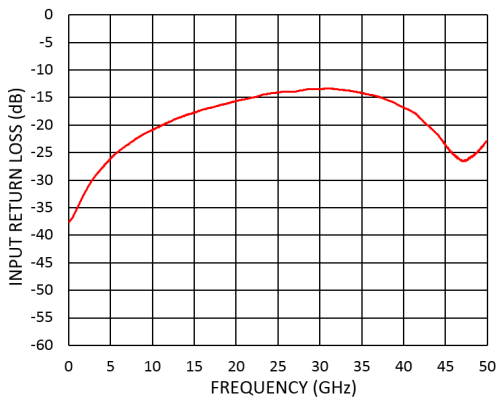
### Insertion Loss vs. Frequency



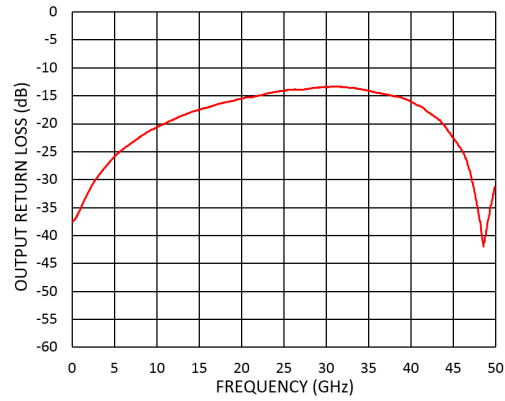
### Isolation vs. Frequency



### RL-On vs. Frequency



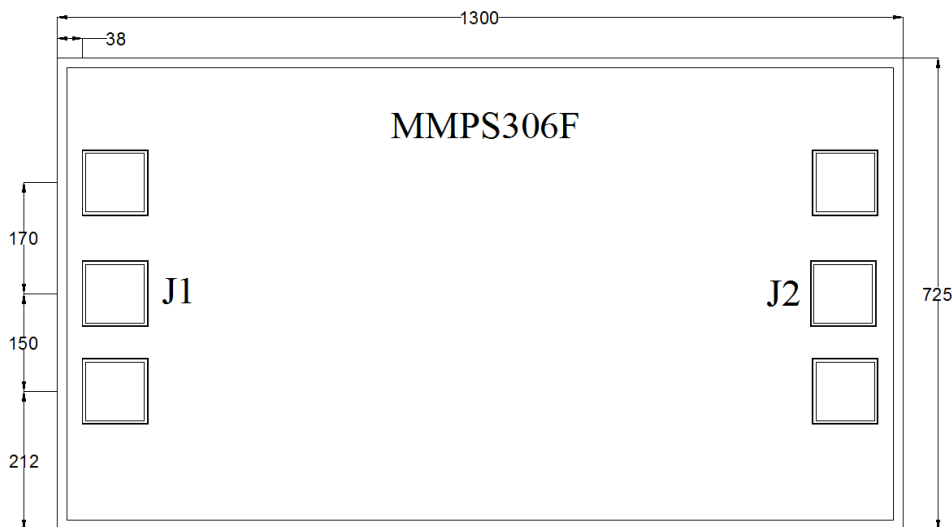
### RL-On vs. Frequency



**Absolute Maximum Ratings**

Max Incident C.W. RF Power	+33dBm
DC Reverse Voltage	25V
Bias Current	±50 mA
Operating Temperature	-55°C to +85 °C
Storage Temperature	-65°C to +150 °C

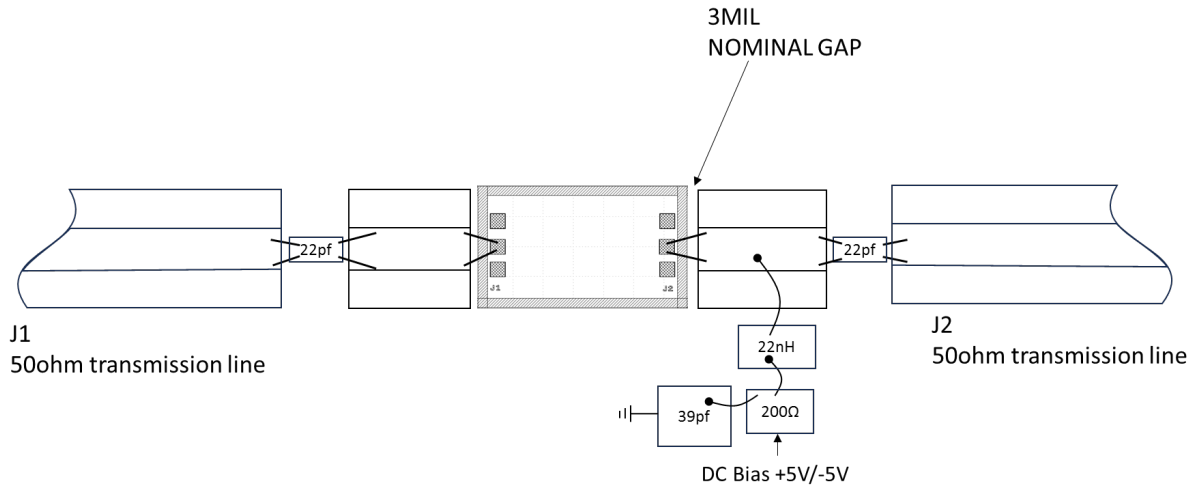

ELECTROSTATIC SENSITIVE DEVICE  
OBSERVE HANDLING PRECAUTIONS

**Outline Drawing:**  
All Dimensions in  $\mu\text{m}$ 

**True Table**

Control Voltage	State
J2	J2→J1
-5V	ON
+5V	OFF



### Assembly Drawing



#### Notes:

1. Die thickness: 100 $\mu$ m
2. Typical bond pad is 100\*100  $\mu$ m<sup>2</sup>
3. Bond pad metallization: Gold
4. Backside metallization: Gold
5. Backside of the die (GND)
6. No connection required for unlabeled bond pads

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